Autologous cell therapy for Parkinson's disease using iPSC-derived DA neurons

Grant Award Details

Autologous cell therapy for Parkinson's disease using iPSC-derived DA neurons

Grant Type: Quest - Discovery Stage Research Projects

Grant Number: DISC2-09073

Project Objective: To further characterize the functionality and variability ofiPSC-derived dopaminergic neurons derived from Parkinson's patients for thedevelopment of an autologous, cell-based therapy.

Investigator:

Name:	Jeanne Loring
Institution:	Scripps Research Institute
Type:	PI

Disease Focus: Parkinson's Disease, Neurological Disorders

Human Stem Cell Use: iPS Cell

Cell Line Generation: iPS Cell

Award Value: $2,354,226

Status: Active

Grant Application Details

Application Title: Autologous cell therapy for Parkinson's disease using iPSC-derived DA neurons

Public Abstract:	**Research Objective** Autologous human dopaminergic neurons derived from patient-specific induced pluripotent stem cells **Impact** Parkinson's disease **Major Proposed Activities** • Characterize differentiation from all 10 patient cell lines • Characterize functionality of patient neurons matured in vitro • Immunogenicity assessment • Cryopreservation feasibility testing • Investigate dose response in vivo • Detect dopamine release in vivo
Statement of Benefit to California:	Thousands of Californians suffer from the degenerative effects of Parkinson's disease, a disease for which there is no cure. There is hope, however, that stem cells could provide the key to providing long-term relief. Our study seeks to treat patients with cells derived from their own stem cells, a process which could be applied to other diseases such as diabetes and heart disease and could potentially be used to the benefit of many of the citizens of California.

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